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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,472

03/21/2005

Kenneth A Burdett

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109 7590 08/20/2009

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Intellectual Property Section
P.O. Box 1967
Midland, MI 48641-1967

EXAMINER

BULLOCK, IN SUK C

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

08/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,472	Applicant(s) BURDETT ET AL.	
	Examiner IN SUK BULLOCK	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,14-18,20-24 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,14,15,20-24 and 33 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/23/09</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1797

DETAILED ACTION

Response to Amendment

No claim has been amended. No claim has canceled and no new claim has been added. Thus, claims 1, 2, 4-12, 14-18, 20-24 and 33 currently remain active in this application.

Maintained Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

Art Unit: 1797

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4-12, 14, 15, 20-24, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 03066725 (hereinafter "JP") in combination with US Patent 6,156,692 to Nubel et al. (hereinafter "Nubel").

JP reference (supplied by Applicants) discloses purifying a metathesis reaction product with at least one adsorbent selected from clay, activated carbon, diatom earth, activated alumina and zeolite (Abstract). Table I on page 201 shows removal catalytic metal tungsten to a level of less than 30 ppm.

The disclosed limitation of less than 30 ppm in JP reads upon the claimed limitation less than 1 ppm. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists. *In re Wertheim*, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 16 USPQ2d 1934 (Fed. Cir. 1990).

It is noted that JP is silent with regard to the components contained in the olefin metathesis product mixture and to the specific catalysts as claimed.

Nubel discloses a ruthenium-containing metathesis catalyst (col. 2, lines 43-60 and col. 3, line 16 to col. 5, line 46). The product produced from a metathesis reaction is treated to remove catalyst residues using charcoal (col. 13, lines 51-53).

A metathesis catalyst based on ruthenium, molybdenum, tungsten, or rhenium is well known in the art as evidenced by Nubel (see col. 1, lines 51-56). It would have been obvious to one skilled in the art to have modified the process of JP by employing a ruthenium-based catalyst taught by Nubel depending upon specifically desired metathesis reaction (col. 1, line 56 to col. 3, line 15).

With regard to the specific components contained in the olefin metathesis product mixture, since the process of JP and Nubel employ a similar catalyst, similar reactants, and a similar process, it is expected that the process of JP and Nubel would inherently contained the claimed components in the metathesis reaction mixture.

Allowable Subject Matter

Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art (US Patent 4,772,758) which discloses purifying a metathesis reaction product by distillation does not disclose the specific steps of distillation as recited in claim 1(b).

Response to Arguments

Applicant's arguments filed 4/23/2009 have been fully considered but they are not persuasive.

Art Unit: 1797

Applicant argues, and the Examiner agrees, that nowhere in JP reference is there a disclosure of general limitation of less than 30 ppm metal content in the product after treatment with an adsorbent. However, it is noted that Table 1 in instant specification shows ruthenium concentration after stabilization in the range of 0.22 ppm to 15.1 ppm for various adsorbents.

Applicant further argues that “the best catalytic metal removal obtained by JP was, in Example 2, which resulted in a polymer having 4 ppm tungsten and 2 ppm aluminum, indicating total catalytic metal concentration of 6 ppm.” The argument is not persuasive because Example 2 in JP reference employed an activated carbon and Applicant’s process using activated carbon (wood carbon) achieves 0.17 to 14 ppm (see Table 1 on page 23 of Applicant’s specification). It is noted that JP’s Example 2 shows activated carbon which is not the same source as Applicant’s Westvaco source. Therefore, the difference in the results obtained in JP as compared to Table 1 in instant specification could be due to the source of the adsorbent and to the type of metal being removed from the polymer, i.e., tungsten versus ruthenium. It is to be noted that Applicant’s claimed metal concentration less than about 1 ppm is only obtained when using a new wood carbon from Westvaco and for removal of ruthenium only.

With regard to the argument directed to Nubel, it is noted that Nubel was relied upon specifically for the teaching of various metathesis catalysts.

For the foregoing reasons, the claimed invention is obvious over JP in view of Nubel.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IN SUK BULLOCK whose telephone number is (571)272-5954. The examiner can normally be reached on Monday - Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/In Suk Bullock/
Primary Examiner, Art Unit 1797